Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
AT&T and NTCA TDM-to-IP Petitions	)	GN Docket No. 12-353

Reply Comments of BT Americas Inc. on Behalf of Itself and other BT Entities

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Dated: February 25, 2013

SUMMARY

The Bells contend that they are not dominant in any markets today nor will they be dominant in the future in an all-IP environment because of rampant competition from other facilities-based providers and over-the-top services. As such there is no need for current or future economic regulation. However, they provide no proof of their assertions of non-dominance today. Nor do they prove that high entry barriers that have characterized entry into the access services markets will be eliminated in an all-IP ecosystem. In fact, the experience in communications markets far more competitive than that of the United States shows that economic bottlenecks continue despite a transition to all-IP networks, and that regulators must be vigilant to ensure continued access services competition to maximize benefits for consumers. The Bells also argue that deregulation is necessary for investment in next generation networks ("NGNs"). Again, the experiences of other countries belie this assertion. Competition drives investment in NGNs and sensible regulation targeted at addressing economic bottlenecks does not deter such investment or transition to all-IP NGNs. The Bells urge the Commission to commence a rulemaking and, in AT&T's case, to conduct trials. However, the Bells provide little information regarding their plans for transition to NGNs to make such an exercise worthwhile.

BT urges the Commission to proceed methodically by first completing the special access rulemaking as expeditiously as possible to establish where enterprise access bottlenecks exist today. Then the Commission should review other markets to establish the existence of dominance in those markets. Meanwhile, the Technology Transitions Policy Task Force ("Task Force") should gather information regarding the experiences of other countries whose incumbent and other networks are also transitioning to NGNs. Finally, the Bells should provide

comprehensive information regarding their NGN plans. Only at this point the Commission would have sufficient information to conduct a productive rulemaking and trials.

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I. INTRODUCTION

BT Americas Inc., a wholly owned indirect subsidiary of BT Group plc ("BT plc"), respectfully submits these reply comments on behalf of itself and other BT operating entities in the United States (collectively referred to herein as "BT") in the above captioned docket. BT responds in this reply to the central argument of AT&T and the other major ILECs in this docket[1] -- that they be deregulated because they are investing in transitioning their networks to NGNs and are no longer dominant in any market.[2] According to AT&T there is "head-to-head rivalry between facilities-based providers or competing broadband platforms; and, on the applications layer … similar head-to-head rivalry between independent providers of IP

[1] Collectively referred to as "the Bells" at various points in this comment.

[2] AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition, GN Docket No. 12-353 at 6, 10-11 (filed Nov. 7, 2012) ("AT&T Petition"); Comments of Verizon and Verizon Wireless, GN Dkt No. 12-353 at 7-21 (filed Jan. 28, 2013) ("Verizon Comments"); Comments of CenturyLink, GN Dkt No. 12-353 at 6-8 (filed Jan. 28, 2013) ("CenturyLink Comments").

services."[3] Because they are not dominant, they reason that there is no need for regulation in an IP-based ecosystem. They also contend that regulation would jeopardize investments in NGNs. Therefore they state that the Commission should eliminate regulation in an all-IP environment. They also argue for the elimination of all regulation of legacy services. In the Bells' utopian world, there would no longer be, amongst other obligations, unbundling, resale, collocation, nondiscrimination or interconnection obligations.[4] As part of the proceeding it seeks to have initiated, AT&T wants the Commission to conduct trials of the TDM-to-IP transition with respect to a set of participating wire centers and proposes that ILECs file plans regarding these wire centers.[5]

The problem with the argument of the Bells that they are no longer dominant and can no longer be dominant in an all-IP ecosystem is that they do not provide proof or explain why this is so. They also fail to provide details of how they are planning to transition to all-IP networks. Indeed they wholly ignore the fact that, depending on how each of them plans to implement transitions to all-IP networks and how the Commission responds, existing network services competition could be eviscerated, and the Bells could further entrench and extend their dominance over network chokepoints.

The Commission should decline to initiate yet another rulemaking or to conduct trials to demonstrate that the technology at wire centers of the Bells' choosing could be transitioned from TDM to IP. The Bells must agree that the first order of business is to establish the accuracy of their claims that they are no longer dominant and would no longer be dominant in any markets in

[3] Ex Parte Letter from Robert Quinn, AT&T, to Marlene Dortch (FCC), GN Dkt No. 12-353 *et al.* at 2 (re-filed Jan. 15, 2013) ("Ex Parte letter from Robert Quinn").
[4] AT&T Petition at 5-7, 10-20; Verizon Comments; CenturyLink Comments.

[5] AT&T Petition at 6; AT&T Comments at 5-7.

an all-IP ecosystem. Otherwise a central thesis of their argument fails. In order to establish this with respect to dedicated leased lines access services, the Commission should complete its special access rulemaking as expeditiously as possible. To establish whether there is dominance in other markets, the Commission should initiate comprehensive market analyses similar to the one to be conducted in the special access rulemaking. Once these steps have been completed or in parallel, the Bells should share their comprehensive plans regarding the transition of their networks to NGNs. Meanwhile the Task Force should evaluate learning from other regulators regarding their experiences with incumbents transitioning networks to all-IP networks. Until these steps have been completed, there is little sense in initiating a rulemaking regarding TDM-to-IP transitions or conducting trials.

II. TRANSITION TO ALL-IP WOULD NOT ELIMINATE BOTTLENECKS IN ENTERPRISE INFRASTRUCTURE

After they transition networks to all-IP networks, the major ILECs would continue to have the same control over business access chokepoints that they had in a TDM and TDM/IP environment. Despite AT&T's claims of "head-to-head rivalry between facilities-based providers or competing broadband platforms" in the enterprise market, there simply are not ubiquitous, competing platforms that pass by all or even most commercial buildings. There are only the ubiquitous Bell networks which have today and will continue to have dominance for the foreseeable future over dedicated enterprise access and backhaul facilities.

The Bells do not explain or provide evidence in their comments of why or how the build/buy decisions of competitors such as cable providers and CLECs would change in an all-IP environment allowing the latter to accelerate their buildout of parallel access infrastructure to enterprise sites. They offer no proof that the role of wireless would change in an all-IP environment and become a substitute for reliable, secure, wireline access pipes connecting

enterprise locations to each other. They only offer broad, sweeping assertions that the ILECs do not and will not have dominance in any market.

As Ad Hoc makes clear in its comments, the advent of IP has not changed the physical realities of "last mile"deployment. IP does not change the fundamental economics of the network facilities on which IP technologies depend like trenches, poles, rights of way, conduits, fiber runs, municipal permitting, and rights of access to buildings.[6] This was also the Dutch regulator's conclusion when it found KPN, the Dutch telecommunications incumbent, to have market power over the fiber-to-the-office optical distribution frame ("FTTO ODF") access market. (KPN is in the seventh year of transitioning its network to an all-IP network in a highly liberalized Dutch communications market.) In its comments regarding these findings, the European Commission said that the Dutch regulator had found KPN to be dominant in this market because of "a difficult to replicate FTTO infrastructure, advantages from vertical integration, enhanced by its network coverage which facilitates in particular the provision of competitive multi-site offers; economies of scale and scope; barriers to switching, insufficient countervailing buying power; [and] barriers to entry for new market players that could sufficiently discipline KPN."[7] Many of the traditional barriers to entry continue to exist at the network infrastructure level despite the transition to all-IP ecosystem, and therefore economic regulation is necessary to address these bottlenecks.

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[6] Comments of Ad Hoc Telecommunications Users Committee, GN Dkt No. 12-353 at 10 (filed Jan. 28, 2013) ("Ad Hoc Comments").

[7] *See* European Commission ("EC") Comments to OPTA in response to OPTA's notifications about its findings regarding the markets for unbundled access to business fiber networks, high quality wholesale broadband access and leased lines in the Netherlands, C(2012) 9967 ("EC Comments to OPTA re: wholesale business access"), available at https://circabc.europa.eu/sd/d/f8f1d639-8a1f-4432-afc1-1a516acc9a4e/NL-2012-1407-1408%20Adopted_EN.pdf.

III. COMPETITION FROM OVER-THE-TOP SERVICES WOULD NOT CHECK ILEC ABUSES OF MARKET POWER NOR WOULD IT PRODUCE INNOVATION IN ENTERPRISE ACCESS

Alternatively AT&T and Verizon claim regulation would be unnecessary in an all-IP ecosystem because of competition from over-the-top services.[8] They never explain why competition in retail business voice or data services from over-the-top services would cause greater price or product innovation at the physical access layer or for network access services. Why would competition from a cloud-based unified communications service cause AT&T or Verizon to drop their prices for Ethernet or TDM business access services? Why would competition from cloud-based services cause AT&T and Verizon to build more innovative access infrastructure to government and commercial buildings in the United States? Why would competition from over-the-top data services providers cause AT&T and Verizon to roll out premium Ethernet over fiber services to commercial buildings? The answer is that over-the-top services would not cause any of these effects. All that would happen, if the Commission does not pursue policies to control abuse of dominance over access bottlenecks and encourage access competition as networks transition to all-IP, is a loss of innovation and major ILECs continuing to charge monopoly rents for these connections, using these monopoly rents to cross-subsidize operations in downstream markets, and sweating their monopoly assets.

Effective competition in access and backhaul services depends on either multiple, parallel access and backhaul networks, which is wholly uneconomic in the majority of enterprise markets in the United States, or regulation that mandates wholesale access to monopoly access and backhaul networks on fair and equivalent terms. All-IP networks will not change this need to address access to bottleneck assets, and BT firmly believes that regulation will be essential to ensure consumers will have a choice of supplier of network services.

[8] Ex Parte Letter from Robert Quinn at 2; Verizon Comments at 1-2, 12.

IV. IRRESPECTIVE OF WHETHER ILECS' NETWORKS ARE TDM, TDM/IP OR ALL-IP, ONLY COMPETITION WILL BEGET ACCESS INNOVATION

Competition in access and backhaul services is necessary to bring down the prices of access and backhaul services and to spur service innovation. The industry has witnessed this time and again, and most recently with respect to the deployment of enterprise Ethernet services in the United States. Ethernet gained a permanent foothold in the U.S data services market only because of CLECs and Ethernet-only providers. They were the early, primary promoters of Ethernet services. They used unbundled local loops and Ethernet over copper technology or deployed Ethernet over fiber to specific buildings that had a sufficient level of demand to bring affordable Ethernet access services to some enterprise locations. The ILECs followed and offered Ethernet access in response to the Ethernet services introduced by CLECs.[9]

CLECs were also the first to offer a greater variety of sub-45 Mbps Ethernet access products using Ethernet over copper technology. For years, there were no dedicated enterprise access options available at speeds in between 1.5 Mbps and 45 Mbps to connect enterprise sites. An enterprise that needed bandwidth greater than 1.5 Mbps at a site had to make do either with a few bonded T1s to get higher speed access (e.g. 3 or 4.5 Mbps access) or step up to purchase a 45 Mbps access circuit that it did not really need. It wasn't possible to order a 10 or 20 Mbps access circuit. Typically an enterprise would bite the bullet and purchase a 45 Mbps DS-3 access circuit when the cost of paying for multiple bonded T1 access circuits for small increases in bandwidth simply did not make sense. However, after CLECs introduced Ethernet over copper technologies (albeit to a limited number of commercial buildings) an enterprise could order a 10

[9] *See* IDC, *US Ethernet Services 2006-2010 Forecast.* CLECs have pointed out that in a recent filing AT&T itself admits that ILECs invested in Ethernet in response to CLECs' investments in Ethernet. Comments of CBeyond *et al* GN Dkt No. 12-353 at 4 (filed Jan. 28, 2013).

Mbps Ethernet over copper access service for $550 and not pay double this amount for three bonded T1 access circuits or six times this amount for a 45 Mbps access circuit.[10] This is the kind of access product and price innovation that cannot be created by competition from over-the-top services.

One witnesses the same phenomenon of competition being the primary driver of investment and innovation in other countries. In the Netherlands, KPN, the Dutch incumbent telco, is transitioning its network to an all-IP network in response in part to competition from ubiquitous DOCSIS 3.0 cable infrastructure and intramodal competition.[11] Similarly, in Switzerland, Swisscom is deploying fiber-to-the-street, FTTH and FTTC services, in response to competition from UPC Cablecom's DOCSIS 3.0 infrastructure.[12] To preserve and expand access innovation, the Commission must adopt policies that continue to encourage access competition, including intramodal access service competition, as the Bells' networks transition to all-IP technologies.

[10] *See* Ex Parte Presentation of U.S. TelePacific, RM-11358 at 6 (filed Feb. 15, 2013) which quotes prices for Ethernet services from a site www.shopforethernet.com. It quotes an average price of $550 for 10 Mbps Ethernet over Copper, compared to $350 for T1 (1.54 Mbps) or $3000 for DS-3 (45 Mbps).

[11] *See* presentation by Remko Bos, Acting Director Broadband and Broadcasting, OPTA, *NGN in the Netherlands, a Regulatory Perspective* (2007) available at http://www.globaltelecomsbusiness.com/pdf/OPTA_PPT.pdf

[12] Analysys Mason, *Swisscom Group Deploys FTTS to Make Savings and Supplement its FTTH and FTTC Networks* (Sept. 28, 2012).

V. FAILURE TO ENSURE COMPETITION IN ACCESS AS ILEC NETWORKS TRANSITION TO ALL-IP COULD ENTRENCH ILEC MONOPOLIES OVER ACCESS

If the Commission were to do as the Bells ask and eliminate and/or forbear from applying economic regulation to bottlenecks in networks, as these networks transition to IP-based networks, the Commission would eviscerate existing levels of competition in enterprise access and allow the major ILECs to further extend and entrench their monopoly power over these bottlenecks. Part of what a transition to a next generation all-IP network can allow is an opportunity to achieve cost efficiencies by closing down exchanges, rationalizing the network and platforms, changing network topology, discontinuing legacy products and services, introducing new ones, and rationalizing interconnection at points deeper in an incumbent's network and further away from end customers' premises. This is the case with KPN's plan to transition to an all-IP network.[13] AT&T, Verizon and Centurylink, however, do not provide any information regarding their plans in this regard. AT&T only suggests that the ILECs provide information in the future with respect to the wire centers that would participate in the trials it is proposing. This is the equivalent of a logging operation proposing to share details about cutting and replanting a few specific trees in a forest but not discussing the overall plans for logging in

[13] *See* Inderpeet Kaur, Ovum, *Netherlands (Country Regulation Overview)* (July 30, 2012)("Ovum Netherlands 2012 Report"); Emma Buckland and David Martin, Analysys Mason, *Country Report Netherlands* (Mar. 2012) ("AMason Netherlands 2012 Report"); Letter from D.I. Bos, OPTA to E. Blok, KPN regarding KPN's All-IP Migration Offer (Oct. 4, 2007) ("OPTA 2007 Letter re: KPN Migration Offer"); presentation by Gerard Boogert, OPTA, *Regulation of NGN; The Dutch Case* (Oct. 9, 2008) available at http://www.cullen-international.com/cullen/cipublic/presentations/1_gerard_boogert_regulation_of_ngn_access_the_dutch_case.pdf. When BT had plans to transition to an NGN core, it too planned to shut off legacy networks and services by a date certain, rationalize the number of exchanges and eliminate products and services. *See* presentation by Ittai Hershman, Director, 21CN Commercial Development, BT, *EU Open Workshop on NGN Policy and Regulatory Issues* (June 2005). BT has since pulled back from this NGN plan and is now focused on FTTC deployments to UK homes.

forests in its region and the impact on ecosystems or the environment. What would be the purpose of conducting a few trials at this stage? None other than deflecting attention and discussion from macro issues to focus on minutiae.

In KPN's case, its plan is to eliminate over 1300 of 1500 exchanges/main distribution frame ("MDF") locations in the Netherlands as part of the transition to an all-IP network and to rationalize interconnection at approximately 150 metro core locations. In addition, KPN proposes to rationalize voice interconnection at four interconnection points instead of nineteen points. OPTA, the Dutch regulator, required KPN to devise a solution acceptable to all parties regarding the phase out of these 1300 exchanges/MDF sites. Verizon was one of the parties involved in these discussions. Amongst other conditions accepted by KPN, it may not close exchanges/MDF sites unless it has provided two to three years of notice and provided wholesale alternatives at the remaining sites. In addition, KPN may not continue to use the MDF sites from which it has migrated competitors. OPTA incorporated its analysis of KPN's plans to transition its network to an all-IP network into OPTA's technology neutral, periodic market reviews of the communications market in the Netherlands.[14]

In its latest set of market reviews, OPTA still finds that KPN has significant market power in, *inter alia*, the market for wholesale leased line access (Ethernet and TDM), the market for wholesale physical network infrastructure access, and the wholesale (high quality) business broadband market. As such, KPN is required to provide cost-oriented, nondiscriminatory access on a transparent basis to leased line access, infrastructure and wholesale business broadband

[14] *See* Ovum Netherlands 2012 Report; AMason Netherlands 2012 Report; OPTA 2007 Letter re: KPN Migration Offer; EC Comments to OPTA re: Wholesale Business Access.

products.[15] Furthermore, KPN's offers are subject to a price squeeze test. [16]

The learning from the Dutch example is that despite economic regulation, ubiquitous cable infrastructure in the Netherlands, mobile services competition, net neutrality regulation, competition from over-the-top providers (e.g. Skype and other VOIP providers in the Netherlands), and the primary provider of fiber-to-the-premises services in the Netherlands, Reggefiber, operating on a wholesale, open access basis, significant economic bottlenecks were still found to exist in the communications infrastructure.[17] KPN is still found to have dominance, *inter alia*, over wholesale enterprise access services provided over fiber or copper. The transition of networks in the Netherlands to an all-IP ecosystem has not magically eliminated economic bottlenecks.

VI. COMPETITION AND NOT DEREGULATION IS A DRIVER OF INVESTMENT IN NEXT GENERATION NETWORKS

Another of AT&T's arguments is that regulation will prevent investment by the major ILECs in NGNs. AT&T cites in passing the example of Europe as a case in point.[18] Contrary to AT&T's assertion, regulation in Europe has not deterred investment in fiber. Some of the European countries that have the most aggressive deployments of next generation access and

[15] This includes unbundled fiber access and specifically Fiber to the Office ("FTTO") Optical Distribution Frame ("ODF") access, collocation and ODF backhaul services. OPTA is also proposing a "near-net" service obligation which would require KPN to build fiber to enterprise sites less than 250 meters from the KPN fiber network, non-discrimination obligations and cost-oriented ODF access. With respect to high quality wholesale business broadband services, OPTA is proposing to require a "near-net" service obligation similar to that in the FTTO ODF access market. *See* EC Comments to OPTA re: Wholesale Business Access.

[16] *Id.*

[17] Two facilities-based mobile providers and more than two resellers compete with the incumbent KPN's mobile services network for customers. *See* Ovum Netherlands 2012 Report; AMason Netherlands 2012 Report.

[18] AT&T Comments at 7.

fiber-based broadband services also have strong economic regulation of network chokepoints. What is spurring next generation investments by incumbents in these countries is rampant competition from intermodal **and** intramodal providers.

In the Netherlands, the incumbent KPN is aggressively rolling out FTTH, FTTN, VDSL and FTTO technologies to meet competitive threats from cable. Fiber reaches approximately 18% of Dutch households while VDSL services reach another 45-50% of Dutch households.[19] Similarly, in the U.K., where cable passes approximately half of U.K. households and BT also experiences strong intramodal competition as a result of the functional separation of BT, BT is aggressively deploying next generation fiber-based access. BT expects to have FTTC services pass approximately two thirds of UK homes by the end of 2014.[20] Again, this is despite functional separation of BT's bottleneck assets in BT openreach, and imposition of remedies pursuant to the EU's regulatory regime including accounting separation, cost-oriented price regulation and the publication of metrics ("KPI") where BT has been found to have significant market power. Regulation has not deterred BT's investment in fiber to the cabinet and fiber to the premises technologies. AT&T's assertion is simply wrong.

VII. **CONCLUSION**

The ILECs have failed to demonstrate the need for trials or yet another rulemaking. They have not proven their claims that they do not currently have dominance in any markets and will have no dominance in an all-IP ecosystem, but the only way to prove or disprove their arguments

[19] *See* NY Times, *KPN to Raise 4 Billion Euros to Fend Off Rivals* (Feb. 5, 2013); AMason Netherlands 2012 Report which states VDSL reaches 3.4 million Dutch homes. There are approximately 7.3 million Dutch households.

[20] BT Annual Report 2012 at 2.

is to conduct comprehensive market analyses. The Commission is well on its way with respect to conducting such an analysis of the special access market. The Commission should complete its special access rulemaking expeditiously. The learning derived from analyzing data gathered as a result of the mandatory data request should inform the Commission's views on how to preserve network competition as networks transition to NGNs. In the interim, the Task Force should gather learning from other regulators which have grappled with the issues raised by these types of NGN transitions. When the Bells are ready to submit detailed and comprehensive information about their NGN plans, the Task Force should facilitate serious dialogue and discussion amongst the Bells, industry and the public about how best to address impacts on consumers and competition. Until the special access rulemaking is complete and the Bells are willing to be transparent regarding their NGN plans, another rulemaking regarding the rules that should or should not apply or the conduct of TDM-to-IP trials would be premature.

Respectfully submitted,

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